

Definition: Vertex presentation in which the fetal back is directed posteriorly

Incidence: -10% at onset of labor

-Right occipito-posterior is more common than left occipito-posterior because:

- 1-Dextro-rotation of the uterus
- 2- The right oblique diameter is slightly longer than the left one
- 3-The left oblique diameter is reduced by the presence of sigmoid colon

Etiology

1-The shape of the pelvis: **anthropoid** and **android** pelvises are the most common cause of occipito-posterior due to narrow fore-pelvis.

2-Maternal kyphosis: The convexity of the foetal back fits with the concavity of the lumbar kyphosis.

3-Anterior insertion of the placenta: the foetus usually faces the placenta (doubtful).

4-Other causes of malpresentations: as

(Placenta praevia, Pelvic tumours, Pendulous abdomen, Polyhydramnios, Multiple pregnancy)

Diagnosis

A) During pregnancy

-Inspection:

- Fetal movement may be detected on both sides of the middle line
- The abdomen looks flattened below the umbilicus due to absence of round contour of the fetal back
- A groove may be seen below the umbilicus corresponding to the neck

-Palpation:

- Fundal grip:** The breech is felt as a soft, bulky, irregular non-ballotable mass.
- Umbilical grip:** The back felt with difficulty in the flank away from the middle line
The anterior shoulder is at least 3 inches from the middle line
The limbs are easily felt near, or on both sides, of the middle line
- First pelvic grip:** The head is usually not engaged due to deflexion.
The head is felt smaller and escapes easily from the palpating fingers as they catch the bitemporal diameter instead of the biparietal diameter in occipito-anterior
- Second pelvic grip:** The head is usually deflexed.

-**Auscultation:** FHS are heard in the flank away from the middle line.

In major degree of deflexion, the FHS may be heard in middle line

B) During labour

In addition to the previous findings vaginal examination may reveals:

- 1-Slow dilatation of the Cervix
- 2-Premature Rupture of the membrane
- 3-Prolapsed cord

-Palpation of Anterior fontanel -A certain degree of deflexion is present

Mechanism of Labor:

A-Normal mechanism (90%)

Deflexion is corrected and complete flexion occurs. The occiput meets the pelvic floor first, long anterior rotation 3/8 circle occurs bringing the occiput anteriorly and the fetus is delivered normally

B-Abnormal mechanism (10%)

1-Deep transverse arrest:

In mild deflexion, the occiput rotates 1/8 circle anteriorly and the head is arrested in the transverse diameter

2-Persistent occipito-posterior:

In moderate deflexion, the occiput and sinciput meet the pelvic floor simultaneously, no internal rotation and the head persists in the oblique diameter

3-Direct occipito-posterior (face to pubis):

In marked deflexion, the sinciput meets the pelvic floor first, rotates 1/8 circle anteriorly and the occiput becomes direct posterior

****In direct occipito-posterior, the head can be delivered by flexion supposing that the uterine contractions are strong and there is no contracted pelvis**

However, perineal lacerations are more liable to occur as:

-The vulva is distended by the large occipito-frontal diameter 11.5 cm,

-The perineum is overstretched by the large occiput.

****In deep transverse arrest and persistent occipito-posterior no further progress occurs and labor is obstructed as the head cannot be delivered spontaneously**

****Obstructed Labor at vaginal examination:**

1-Vulva: is edematous 2-Vagina: is dry and hot 3-Cervix: fully or partially dilated, edematous & hanging

4-The membranes: are ruptured

5-The presenting part: is high and not engaged or impacted in the pelvis. If it is the head it shows excessive moulding and large caput

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Management:

A) First stage

1-Exclude contracted pelvis 2-Exclude presentation or prolapse of the cord

3-Inertia and prolonged labour are expected so oxytocin may be indicated

4-Avoid premature rupture of membranes by (rest in bed, no straining)

5-Avoid frequent vaginal examination to ↓ risk of sepsis

B) Second stage

-Wait for 2 hours in primi and 1 hour in multi

-One of the following will occur:

1-Long internal rotation 3/8 circle:

Occurs in about 90% of cases and delivery is completed as in normal labor

2-Direct occipito-posterior (face to pubis):

Occurs in about 6% of cases, **Episiotomy** is done to avoid perineal laceration

3-Deep transverse arrest (1%) and persistent occipito-posterior (3%):

The labour is obstructed and one of the following should be done:

-Manual rotation and extraction by forceps under general anesthesia

-Rotation & Extraction by forceps (e.g. Kielland's forceps)

-Vacuum extraction (ventouse): Only 3 trials allowed

} (Both aren't used)

****Advantages of Ventouse:** -Less Traumatic -Works with non-engaged head

-Need smaller space -No need for anesthesia

****Ventous isn't used with premature babies as it may cause fracture of the skull**

-If all failed → **Cesarean Section**

Complications:

A) Fetal: 1-IUFD 2-Fetal distress 3-Fetal injuries

B) Maternal: 1-Maternal distress 2-Tears (Perineal - Vaginal - Cervical - Rupture uterus)

3-Postpartum Hemorrhage (traumatic - atonic)